

**REMARKS**

Claims 1-22 are pending in the application. Claims 1-22 were subject to the Requirement for Restriction.

**Restriction Requirement**

The Examiner has required restriction to one of the following inventions under 35 U.S.C. §§ 121 and 372:

- Group I: Claims 1-7 and 14-22, drawn to a fluorescent protein derived from *Favia fava* having the amino acid sequence of SEQ ID NO: 1 or an amino acid sequence comprising a deletion, substitution, and/or addition of one or more amino acids in SEQ ID NO: 1; a fusion protein comprising the fluorescent protein; a method for analyzing the localization or dynamics of the protein in cells; and a method of producing a fluorescent protein by introducing a substitution at certain positions of SEQ ID NO: 1; and
- Group II: Claims 8-13, drawn to a DNA sequence encoding a fluorescent protein derived from *Favia fava*, wherein the DNA encodes the amino acid sequence of SEQ ID NO: 1 or an amino acid sequence comprising a deletion, substitution and/or addition of one or more amino acids in SEQ ID NO: 1; or wherein the DNA has the nucleotide sequence of SEQ ID NO: 2, or of SEQ ID NO: 13, 15, 17, 19, or 21 or a nucleotide sequence comprising a deletion, substitution, and/or addition of one or more nucleotides in SEQ ID NO: 13, 15, 17, 19, or 21; and a recombinant vector or a transformant comprising the DNA sequence.

**Election with Traverse**

In order to be responsive to the requirement for restriction, Applicants elect the invention set forth in Group II as “DNA sequence encoding a fluorescent protein derived from *Favia favius*, wherein the DNA encodes the amino acid sequence of SEQ ID NO: 1 or an amino acid sequence comprising a deletion, substitution and/or addition of one or more amino acids in SEQ ID NO: 1; or wherein the DNA has the nucleotide sequence of SEQ ID NO: 2, or of SEQ ID NO: 13, 15, 17, 19, or 21 or a nucleotide sequence comprising a deletion, substitution, and/or addition of one or more nucleotides in SEQ ID NO: 13, 15, 17, 19, or 21; and a recombinant vector or a transformant comprising the DNA sequence”, with *traverse*.

In order to be responsive to the requirement for restriction, Applicants further elect SEQ ID NO: 19 as “one” nucleotide sequence for examination, with *traverse*.

Applicants submit that at least Claims 8 and 11-13 read on the elected invention.

**Traverse**

Notwithstanding the election of the invention set forth in Group II in order to be responsive to the Restriction Requirement, Applicants respectfully traverse the Examiner’s requirement for restriction.

The Examiner has stated that the groups of inventions set forth in the Restriction Requirement do not relate to a single general inventive concept under PCT Rule 13.1, and that the groups of inventions allegedly lack the same or corresponding special technical feature. In particular, the Office states that each of the groups is directed to “distinct chemical entities (i.e., polypeptides and polynucleotides), and/or methods which use different materials and produce different effects.”

In response, Applicants note that this application is an application filed under 35 U.S.C. § 371 and that unity of invention requirements apply. Applicants submit that the Office has not set forth any rationale as to why the groups of inventions are not so linked as to form a single general inventive concept, nor has the office indicated what it alleges the special technical feature of the groups of inventions to be. Accordingly, the restriction requirement is deficient because unity of invention as set forth under 35 U.S.C. § 371 and 37 C.F.R. § 1.475 has not been meaningfully addressed. Applicants respectfully remind the Office that pursuant to these rules, when the Office concludes that all of the claims share a “special technical feature,” any remaining non-elected claims should be rejoined.

Furthermore, the Examiner has not stated that examination of all the claims would pose a burden, much less set forth any reasons why examination of the all the restricted groups would be burdensome. In particular, Applicants submit that while the indicated Groups may be directed to distinct chemical entities, there should not be an undue search burden to consider more than one disclosed sequence. The MPEP states that if the search and examination of all the claims in an application can be made without serious burden, the Examiner must examine them on the merits, even though they include claims to independent or distinct inventions. (MPEP 803.) Applicants note that this section of the MPEP states that an Examiner must examine all of the claims if they all can be examined without undue burden, even if distinctness is present. It does not authorize refusal to examine all the claims if distinctness exists and an undue burden would not exist if all the claims were examined.

Applicants further submit that the MPEP does not authorize an “all or one” approach to restriction practice. Such practice places an undue burden on Applicants who are entitled to have a single invention and a reasonable number of embodiments considered in a patent application.

It also taxes the resources of the Patent Office by forcing the filing of hundreds of applications where only a single application was originally filed.

Rather, Applicants submit that what the MPEP authorizes is restriction to a reasonable number of Groups (and this interpretation is consistent with MPEP 803.04, relating to nucleotide sequences). In this instance, Applicants should be entitled to choose a reasonable number of sequences for examination in this application. A reasonable number may be five or it may be ten; MPEP 803.04 states “[i]t has been determined that normally ten sequences constitute a reasonable number for examination purposes.” Applicants respectfully submit that one is not a reasonable number. Applicants respectfully submit that more than one DNA sequence should be considered in this application and that such consideration should not impose an undue search burden on the Examiner.

Still further, even if the Examiner’s characterization of Groups I-II were to be considered correct, Applicants respectfully request that at least DNA sequences of SEQ ID NOs: 13, 15, 17, and 21 be examined with SEQ ID NO: 19 in the instant application, pursuant to the guidelines set forth in M.P.E.P. § 803. That is, the Examiner is respectfully requested to reconsider the requirement and find that there would not appear to be a “serious burden” on the Patent and Trademark Office in examining claims directed to the non-elected invention.

In particular, it would appear that a search for the inventions identified by the Examiner would significantly overlap because each of SEQ ID NOs: 13, 15, 17, 19 and 21 share a common physicochemical property, i.e., each of the nucleotides encodes a fluorescent protein capable of photoconversion in response to irradiation with light. Furthermore, the homology of SEQ ID NOs: 13, 16, 1 and 21 to SEQ ID NO; 19 is as follows:

SEQ ID NO: 13      98.6%;

SEQ ID NO: 15      98.9%;

SEQ ID NO: 17      99.1%; and


SEQ ID NO: 21      98.6%.

Accordingly, a search of the above-listed sequences along with SEQ ID NO: 19 would significantly overlap and should not pose a serious search burden to the Office.

In view of the foregoing, it is respectfully requested that the Examiner reconsider the Requirement for Restriction, and withdraw the same so as to give an examination on the merits on all of the claims pending in this application, for which Applicants have timely paid appropriate claim fees.

Should the Examiner have any questions, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully Submitted,  
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